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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,424	04/02/2004	Kenneth Yuen	30932.7US01	1297
23552	7590	08/10/2006	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,424

Applicant(s)

YUEN, KENNETH

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3^{AV} MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

NON-FINAL REEJECTION

The rejections over Ota et al. (US Pat. 6,786,583), Inoue et al. (US Pat. 6,773,099), Barinaga (US 6,478,415) and Aono et al. (US Pat. 5,453,772) are withdrawn in view of the amendments to the claims and the arguments presented in this amendment.

The prior art references newly found necessitated a new ground of rejections as below:

Claim Objection

Claim 27 is objected to because it depends on canceled claim 25. Correction is required.

Claim Rejections

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

The person shall be entitled to a patent unless-

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4-5 are rejected under 35 USC 102 (b) as being anticipated by Gragg et al (US 5,757,90).

Gragg et al discloses in Figures 2 and 4-7 an ink cartridge refill system configured to refill an ink, the system comprising:

- an ink container (60) configured to be coupled to the ink cartridge (20), the ink container defining at least one internal ink tank;
- a drain conduit (38) extending between the internal ink tank of the ink container (60) and the ink chamber of the printer ink cartridge (20);

- a vent member (54, Figure 7);
- a pressure varying means (64) configured to alter a pressure condition in the internal ink tank of the ink container (60) while maintaining a fixed spatial relationship between the ink container and the ink cartridge (20) thereby creating ink flow in the drain conduit (38);
- wherein the ink container includes a plurality of ink tanks (17-20), each ink tank being fitted with drain and vent conduits (not shown) (column 4, lines 1-13); and
- wherein the pressure varying means (64) is a pump and is a pliable portion of a wall of the ink container to increase ink pressure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17, 19, 21-23 and 28 and are rejected under 35 USC 103 (a) as being anticipated Yuen (US Pat. 6,347,863) in view of Chaumet (US 4,995,751).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Yuen discloses in Figures 1-7 an apparatus for refilling an ink cartridge comprising:

- ink container (50) configured to be coupled to the ink cartridge (14), the ink container defining at least one internal ink tank (64) (Figure 3);
- a drain conduit (74) extending between the internal ink tank (64) of the ink container (50) and the ink chamber (20) of the printer ink cartridge (14) (Figure 3);

- a vent member (84) (figure 3);
- wherein the ink container (50) includes a plurality of internal ink tanks (60, 62, 64), each ink tank being fitted with drain and vent conduits (Figure 3); and
- wherein the vent member (82) includes a vent conduit extending between the internal ink tank (64) of the ink container (50) and the ink chamber (20) of the printer ink cartridge (14) (Figure 3).

However, Yuen does not disclose a pressure varying means that is configured to alter a pressure condition in the internal ink tank of the ink container thereby creating ink flow in the drain conduit into an printer ink cartridge; wherein the pressure varying means is a pump; wherein the pressure varying means is a pliable portion of a wall of the ink container; the pressure varying means increases pressure in the ink tank; wherein the pump is mounted to an exterior surface of the ink container; and wherein the pump includes a button shaped actuating member that can be depressed to initiate ink flow.

Nevertheless, Chaumet suggests in Figures 1-3 an ink device comprising a pressure varying means (pump 17) which is a deformable air bladder to increase the internal pressure for obtaining good flow of ink, see lines 25-54, column 3. Wherein the pressure varying means (17) is a pump and is a pliable portion of a wall of the ink container to increase ink pressure.

It would have been obvious to a person having skill in the art at the time the invention was made to employ the pressure varying means as suggested by Chaumet in the refill system of Yuen for the purpose of obtaining good ink flow.

Claims 18, 20, 24 and 25-27 are rejected under 35 USC 103 (a) as being anticipated Yuen (US Pat. 6,347,863) in view of Chaumet (US 4,995,751) as applied to claim 17 and further in view of Ito (US Pat. 6,053,603).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Yuen in view of Chaumet discloses the basic features of the claims invention were stated above but do not disclose steps of mounting the printer ink cartridge in a base member; opening refill holes into the housing interior of the printer ink cartridge; a foam drill inserting into the refill holes and engaging the foam within the housing interior with the foam drill; and wherein coupling the at least one ink reservoir in ink flow communication includes extending an ink conduit between the ink reservoir and the ink chamber of the ink cartridge.

Ito discloses in Figures 1-5d device for refilling an ink cartridge comprising:

- a package (10);
- an printer ink cartridge (200 or 200') being mounted in a base member (20 or 120); refill holes (204) being opened into the housing interior of the printer ink cartridge (200);
- a foam drill (an appropriate tool not shown, column 4, lines 48-54) inserting into the refill holes and engaging the foam (202) within the housing interior with the foam drill; and
- wherein the at least one ink reservoir (210) includes extending an ink conduit (40) between the ink reservoir (210) and the ink chamber of the ink cartridge (200) (Figures 1-5d).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Ito into the apparatus of Yuen, as modified, for the purpose of forming an empty space in the ink absorbing material (202) of the ink cartridge (200) so that an ink transfer conduit (40) remains inside the empty space.

Claims 29-30 are rejected under 35 USC 103 (a) as being unpatentable by Chaumet (US 4,995,751).

Chaumet disclose in Figures 1-4 a device comprising:

- a drain conduit (9);
- a vent member (32, 29, Figure 4);
- a metal container (2) having at least one internal ink tank; and

- a deformable air bladder (17) in fluid communication with the internal ink tank, the air bladder (17) forming an actuating surface accessible at an exterior of the ink container,
- wherein the actuating surface can be manually engaged to compress the air bladder (17) and vary the pressure in the ink tank to initiate the flow of ink; and
- wherein a first opening (3) in fluid communication with the drain conduit (9), a second opening (28) in fluid communication with the vent member (22), and a third opening, and the deformable air bladder (17) is positioned on an external surface of the ink container over the third opening (on element 26, Figure 4), the air bladder (17) in fluid communication with the internal ink tank through the third opening.

However, Chaumet does not disclose that the container (2) is the plastic ink container. For example, the container (2) of Chaumet is made of metal. A skilled artisan realizes that the casing of the container (2) can be made from different materials such as plastic for reducing weight and cost without alternating the performance of the pen. Thus, selecting the plastic container for the pen of Chaumet is considered to be a matter of a mechanical design expedient for an engineer. Lacking of showing any criticality, it would have been obvious to a person having skill in the art at the time the invention was made to employ the plastic container in the pen of Chaumet for the purpose of reducing weight and cost.

Claims 1, 3-12, 14-17, 19, 21-23 and 29 are rejected under 35 USC 103(a) as being unpatentable over Ikkatai et al (US 6,022,102) in view of Chaumet (US 4,995,751).

Ikkatai et al discloses in Figure 9 an ink cartridge refill system configured to refill an ink, the system comprising:

- an ink container (65) configured to be coupled to the ink cartridge (63), the ink container defining at least one internal ink tank;
- a drain conduit (72) extending between the internal ink tank of the ink container (65) and the ink chamber of the printer ink cartridge (63);

- a vent conduit (71) extending between the ink container (65) and the chamber of the ink cartridge (63); and
- a vent member (63e).

However, Ikkaitai et al does not disclose a pressure varying means configured to alter a pressure condition in the internal ink tank of the ink container (65) while maintaining a fixed spatial relationship between the ink container and the ink cartridge (63) thereby creating ink flow in the drain conduit (72).

Nevertheless, Chaumet suggests in Figures 1-3 an ink device comprising a pressure varying means (pump 17) which is a deformable air bladder to increase the internal pressure for obtaining good flow of ink, see lines 25-54, column 3. Wherein the pressure varying means (17) is a pump and is a pliable portion of a wall of the ink container to increase ink pressure.

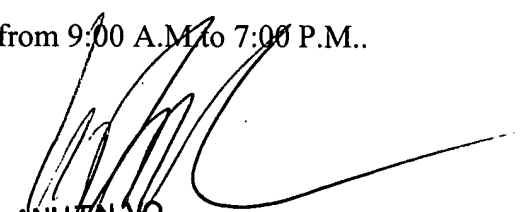
It would have been obvious to a person having skill in the art at the time the invention was made to employ the pressure varying means as suggested by Chaumet in the refill system of Ikkaitai et al for the purpose of obtaining good ink flow.

Applicant's Arguments

The applicant's arguments over Inoue and Barinaga are persuasive without traverse.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M.. The fax number of this Group 2861 is (571) 273-8300.


ANH/VO
PRIMARY EXAMINER
August 3, 2006